

What is claimed is:

1. A image heating device comprising:

5 a heat generating section that has an outer surface  
and generates heat by induction heating;

a heating section placed close to the outer surface  
of said heat generating section that heats said heat  
generating section by induction heating;

10 a positioning section placed close to the end of  
said heating section that positions said heating section  
with respect to said heat generating section; and

a vibration absorption section attached to said  
positioning section that absorbs vibration of said  
heating section produced when said heating section heats  
15 said heat generating section by induction heating.

2. The image heating device according to claim 1, wherein  
said heat generating section is provided on a roller having  
a rotation axis and further comprises a supporting section  
20 that supports the rotation axis of said roller in a  
rotatable manner, and

said vibration absorption section is placed between  
said positioning section and said supporting section.

25 3. The image heating device according to claim 1, wherein  
said heat generating section is run between a plurality  
of rollers each having a rotation axis and further  
comprises a supporting section that supports the rotation

axis of the roller placed on said heating section side out of said plurality of rollers in a rotatable manner, and

said vibration absorption section is placed between  
5 said positioning section and said supporting section.

4. The image heating device according to claim 1, wherein said vibration absorption section is placed between said heating section and said positioning section.

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5. The image heating device according to claim 2, wherein said supporting section and said positioning section have their respective surfaces facing each other, and

the respective surfaces of said supporting section  
15 and said positioning section are circumferential surfaces along the outer surface of said heat generating section.

6. The image heating device according to claim 3, wherein said supporting section and said positioning section have  
20 their respective surfaces facing each other,

the respective surfaces of said supporting section and said positioning section are circumferential surfaces along the outer surface of said heat generating section.

25 7. The image heating device according to claim 1, further comprising a current supplying section that supplies an exciting current having a predetermined frequency to said heating section and causes said heating section to perform

induction heating,

wherein said vibration absorption section absorbs vibration caused by a vibration force having a frequency approximately double the frequency of said exciting  
5 current.

8. The image heating device according to claim 1, further comprising a current supplying section that supplies an exciting current modulated with a ripple component having  
10 a predetermined frequency to said heating section and causes said heating section to perform induction heating,

wherein said vibration absorption section absorbs vibration caused by a vibration force having substantially the same frequency as the frequency of said  
15 ripple component.

9. The image heating device according to claim 1, wherein said vibration absorption section is made of a material whose vibration absorption performance exceeds a  
20 predetermined level at an arbitrary operating temperature.

10. The image heating device according to claim 7, wherein said vibration absorption section is made of a material  
25 whose vibration absorption performance exceeds a predetermined level in an area of frequency being equal to or lower than approximately double the frequency of said exciting current.

11. The image heating device according to claim 8, wherein  
said vibration absorption section is made of a material  
whose vibration absorption performance exceeds a  
5 predetermined level in an area of frequency being  
substantially equal to or lower than the frequency of  
said ripple component.

12. The image heating device according to claim 7, wherein  
10 said vibration absorption section is made of a material  
having a characteristic that the frequency corresponding  
to maximum vibration absorption performance is equal to  
or lower than approximately twice the frequency of said  
exciting current.

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13. The image heating device according to claim 8, wherein  
said vibration absorption section is made of a material  
having a characteristic that the frequency corresponding  
to maximum vibration absorption performance is  
20 substantially equal to or less than the frequency of said  
ripple component.

14. The image heating device according to claim 9, wherein  
said vibration absorption section is made of a material  
25 having a characteristic that a loss factor at an arbitrary  
operating temperature is approximately 0.01 or above.

15. The image heating device according to claim 10, wherein

said vibration absorption section is made of a material having a characteristic that a loss factor is approximately 0.01 or above in an area of frequency being equal to or lower than approximately twice the frequency  
5 of said exciting current.

16. The image heating device according to claim 11, wherein said vibration absorption section is made of a material having a characteristic that a loss factor is  
10 approximately 0.01 or above in an area of frequency being substantially equal to or less than the frequency of said ripple component.

17. The image heating device according to claim 1, further  
15 comprising a pressing section that presses said heating section in a direction in which said heating section approaches said heat generating section.

18. The image heating device according to claim 1, further  
20 comprising a regulating section that regulates the moving direction of said heating section only in a direction in which said heating section approaches said heat generating section or in a direction in which said heating section goes away from said heat generating section.